



16-Port HPNA (Enhanced) Switch with SNMP Management



1216M-10

FCC Certifications



This Equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received; including interference that may cause undesired operation.

CE Mark Warning



This equipment complies with the requirements relating to electromagnetic compatibility, EN 55022 class A for ITE, the essential protection requirement of Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility.

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Unpacking Information

Thank you for purchasing the 16-Port HPNA Manageable Switch. Before you start, please check all the contents of this package.

The product package should include the following:

1. One 16-Port HPNA Manageable Switch
2. One power cord
3. Rubber foot (4) and screws (6)
4. Rack-mount brackets (2)
5. User's Manual CD



Introduction

General Description

The device is a powerful and innovative Normal/Enhanced HPNA Manageable switch hub, with 16 ports 1Mbps switching ports and two 10/100Mbps Fast Ethernet switching ports. It is ideal to deliver a dedicated 1Mbps connection for each attached home network or a single hotel room.

The 1Mbps HPNA is a new technology that provides the network connections through the most widespread telephone wires with no impact on current voice communication. Therefore, users do not need to setup the new network cables and share the network resources. HPNA technology becomes more and more important especially the multi-PC home environment is booming.

With rich management features, the device can be easily managed by any SNMP manager and web browser. This is very useful for system administrator to remote control and monitor each connected room or house whenever there is any malfunction happen. The user-friendly graphical interface makes the management as straightforward as possible.

Store-and-forward switching mode promises the low latency and eliminates all the network errors, including runt and CRC error packets. The switching hub is plug-n-play and fully compliant with all kinds of network protocols. Moreover, the rich diagnostic LEDs on the front-panel provide the operating status of individual port and whole system.

Key Features

- 2 10/100BASE-TX Fast Ethernet port
- Support 16 independent HPNA ports
- Wire speed layer 2 switching
- 4M bits packet switching
- 2M bits control data, including the Switching address and VLAN table
- Prevents packet loss with back pressure and 802.3x flow control
- Store-and-forward forwarding scheme
- Error packet filtering
- Support 12K MAC entries
- Support up to 255 VLAN table entries
- Support remote upgrade function
- Support 2MByte Flash EPROM for code upgrade
- Support 8M bytes SDRAM for run time data storage
- Provides wide range of management tools – Web, SNMP, Console and Telnet.
- Internal switching power supply (90-264Vac / 47-440Hz)
- Operating temp. 0°C ~ 50°C (32° ~ 122°F)
- Humidity: 10 ~ 90 %
- System temperature sensor
- Over-heat warning

The Front Panel

The front panel of the switch is shown as below



LEDs Definition

The rich diagnostic LEDs on the front panel can provide the operating status of individual port and whole system.

Power LED

This indicator lights green when the switch is receiving power; otherwise, it is off.

Status1 LED

When the LED is green, it stands for the switch linking is ok.

Status2 LED

When the LED is green, it means the switch is linking ok.

Note: Status1 and Status2 are blinking interchangeable every 30 seconds.

Management LED

When this LED is blinking, it means the management is ok and it keeps the full function

Port LEDs (HPNA)

Every HPNA port with one relevant LED (LINK / ACT) indicates connection status.

Port LED definition summary table

LED	Status	Statement
LINK / ACT	Green / Flashing Green	Well connected with the device / There is traffic transverses the port

If the port is connected but the relevant LED is dark, check the following items:

1. The switch and the connected device's power are on or not.
2. The connecting cable is good and with correct type

3. The cable is firmly seated in its connectors in the switch and in the associated device
4. The connecting device, including any network adapter is well installed and functioning
5. Confirm the device is implemented within the scope of operative without interference

Port LEDs (Ethernet)

Port LEDs indicators locate on the front panel for showing the operating status of 10/100Mbps Fast Ethernet switching ports.

- **FDX/COL LED**

A collision occurs when two stations within a collision domain attempt to transmit data at the same time. Intermittent flashing amber of the collision LED is normal; the contending adapters resolve each collision by means of a wait-then-retransmit algorithm. Frequency of collisions is an indicator of heavy traffic on the network.

If the FDX/COL lights amber it means the port is under full-duplex operation or dark for half-duplex mode. The following table is a summary of LAN Port LEDs.

LED	Operation
SPEED	100Mbps (Green), 10Mbps (Off)
LINK/ACT	Link is present (Green), Activity (Blinking Green)
FDX/COL	Full-Duplex (Amber), Half-Duplex (Off), Collision (Blinking Amber)

- **LINK/ACT LED**

Every port has a LINK/ACT LED. Steady green (link state) indicates that the port has good linkage to its associated devices. Flashing green indicates that the port is receiving or transmitting data between its associated devices.

Speed LED	Link/Activity LED	Status
Off	Off	No Connection
Off	Green	Connect as 10Mbps
Green	Green	Connect as 100Mbps

- **SPEED LED**

The SPEED LED indicates the link speed of each port. If the LED lights green then the connection speed is 100Mbps, off for 10Mbps.

POST/ Factory RESET Button

POST:

Press it at the beginning of power supplying, system will run self-test procedure.

Factory Reset:

To restore the default value such as IP, VLAN, etc, press it during the operation.

Console Port

The RS-232 console is an interface for connecting a terminal directly. Through the console port, it provides rich diagnostic information includes network statistics, link status and system setting. The operating mode of the console port is:

- DCE
- 9600 (Fix baud rate)
- n (No parity checking)
- 8 (8 Data bits)
- 1 (1 stop bit)
- None (No flow control)

You can use a normal RS-232 cable and connect to the console port on the device. After the connection, you can run any terminal emulation program (Hyper Terminal, Winterm, Telix, etc.) to enter the startup screen of the device. All the detail software operation, please refer to “Console port (out-of-band) connection” session of chapter 4.

The Rear Panel

The rear panel of the switch is shown as below



Power Receptacle

For compatibility with electric service in most areas of the world, the switch’s power supply automatically adjusts to line power in the range 90-264Vac / 47-440Hz.

Plug the female end of the power cord firmly into the receptacle on the rear panel of the switch. Plug the other end of the power cord into an electric service outlet then the power will be ready.

Hardware Installation

This switch can be placed directly on your desktop, or mounted in a rack. If you install the device in a normal-standalone standard, the switch is an Intelligent Switch, and users can immediately use most of the features simply by attaching the cables and turning the power on. In this case, any managerial proceedings are effective only in the range of the switch. After management stacking, you can enjoy the powerful management functions and control the whole system.

Desktop Installation

For desktop installation, the switch needs to put on a clean, flat desk or table close to a power outlet. Plug in all network cables and the power cord, and then the system is ready to work.

Before installing the switch, you must ensure:

1. It is accessible and cables can be connected easily
2. Cabling is away from:
 - Sources of electrical noise such as radios, transmitters and broadband amplifiers
 - Power lines and fluorescent lighting fixtures.
3. Keep water or moisture off
4. Airflow around the unit and through the vents in the side of the case is great for heat radiation (company recommends that you provide a minimum of 25 mm clearance)

To prolong the operational life of your units:

1. Never stack unit more than eight sets high if freestanding
2. Do not place objects on top of any unit or stack
3. Do not obstruct any vents at the sides of the case

Rack-mount Installation

The switch may standalone, or may be mounted in a standard 19-inch equipment rack. Rack mounting produces an orderly installation when you have a number of related network devices. The switch is supplied with rack mounting brackets and screws. These are used for rack mounting the unit.

Rack Mounting the Switch in the 19-inch rack:

1. Disconnect all cables from the switch before continuing.
2. Place the unit the right way up on a hard, flat surface with the front facing toward you.
3. Locate a mounting bracket over the mounting holes on one side of the unit.
4. Insert the screws and fully tighten with a suitable screwdriver.
5. Repeat the two previous steps for the other side of the unit.
6. Insert the unit into the 19" rack and secure with suitable screws (not provided).
7. Reconnect all cables.

Management Guide

This section instructs you how to enter and proceed the advanced management capability, which can be accessed by RS-232 serial port (out-of-band) on the rear panel or by Telnet session / Internet Browser over the network (in-band).

The management functions such as :

- Port Information / configuration / Statistic / Location Search / Duplex mode / Flow Control
- SNMP parameters
- IGMP snooping
- 802.1Q / Port Group VLAN
- Address Table
- Upgrade system firmware
- Reboot system, etc...

Factory Default value:

IP : 10.0.0.1
Subnet Mask : 255.0.0.0
Default Gateway : 10.0.0.254

Standalone switch can be managed using either a standard Web Browser or a Telnet session from any computer attached to the network. The SNMP management feature also permits the switch to be managed from any SNMP network management station running a network management program. To manage the *Standalone switch* :

Access the switch with its IP address “10.0.0.1” (factory default value)

Privilege levels:

- “*root*” : root can do any configuration includes changing password and enable / disable management capability via console port. The default password of root is “*superuser*”
- “*admin*” : admin can do any configuration except changing password. The default password of admin is “*admin*”
- “*guest*” : guest can view whole the runtime information only, moreover, access to Web management interface is not allowed. The default password is “*guest*”

Console Port (Out-of-band) connection

After attaching a RS-232 cable (Straight-through) to the serial port of a PC running a terminal emulation program, press **“Enter”** key then login screen appears. Enter your username and password to login the management console.

Note :

The management functions of console program are exactly the same with web-based management interface but in text mode. For further operation, please refer to '*Starting a Web Browser Session*'.

- Attention :**

 - 1.** The factory default value of UserName and Password is **“admin”**
 - 2.** For detail console port configurations, please refer to “Console Port” in chapter 2
 - 3.** System configurations via the Console Port only will be allowed by the way of master device

In-Band Connections (Web Browser / Telnet)

To manage the switch through in-band access, you should configure the management station with an IP address and subnet mask compatible with your clustering switch.

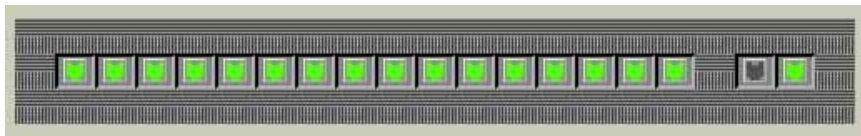
Starting a Telnet Session

To access the switch through a Telnet session :

1. Sure of the switch is configured with an IP address and the switch is reachable from a PC
2. Start the Telnet program on a PC and connect to the switch

Starting a Web Browser Session

The User Interface



Ports

Information

It is a ports' configurations summary table when you point out per port (HPNA and Ethernet). Via the summary table, you can know status of each port clear at a glance, like Name, admin, speed, self-adjusting mode, TX/RX power, bandwidth limitation and CRC threshold.

Configuration

Port attributes can be setup in this page (HPNA Port)

Port	Name	Admin	Speed	Self Adjusting Mode	Tx Power (1~9)	Rx Noise (9~255)	Bandwidth Limitation Off (Range:1~5 Unit:0.5 Sec)	CRC Threshold	
1		Enable	High	Auto	9	9	Disable	Off	10%
2		Enable	High	Auto	9	9	Disable	Off	10%
3		Enable	High	Auto	9	9	Disable	Off	10%
4		Enable	High	Auto	9	9	Disable	Off	10%
5		Enable	High	Auto	9	9	Disable	Off	10%
6		Enable	High	Auto	9	9	Disable	Off	10%

Set up Name

Click the “Name” column of the port. Enter a name for identification, like ‘Richard’; and **press Apply**

Port	Name	Admin	Speed	Self Adjusting Mode	Tx Power (1~9)	Rx Noise (9~255)	Bandwidth Limitation Off(Range:1~5 Unit:0.5 Sec)			CRC Threshold
1	Richard	Enable	High	Auto	9	9	Disable		Off	10%

Set up Admin

Click the “Admin” column of the port. Choose ”Enable” or ”Disable” and press Apply.

Admin

Enable

Enable

Disable

Set up Speed (For Normal model)

Click the “Speed” column of the port. Choose “High” or “Low”.



Note: “High” is 1Mbps. “Low” is 0.7Mbps.

Set up Self Adjusting Mode

To set up TX Power and RX Noise, click the “Self Adjusting Mode” column of the port to choose. The default is Auto, and manual is for user setup.



Set up TX Power and RX Noise

For our default setting is degree “9”. If you cannot be confident of setting “TX Power” and RX Noise, please adjust “Self Adjusting Mode” as the Auto mode. It will adjust the perfect status automatically. TX power value is based on distance. For longer distance transmission, chose higher value. To transmit under environment with much interference, setting up higher value could decrease the interference. Any data under the Value will be regard as noise not data.

Tx Power	Rx Noise
9	9

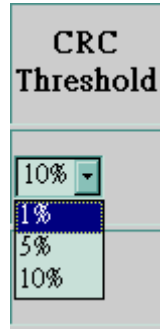
Set up Bandwidth Limitation

The default setting is “disable”. To enable the limitation of Bandwidth, select **Enable**. You can have four configurations to set it up and choose a suitable one. There are 128k/s, 256k/s, 384k/s and 512k/s four categories to choose. The access authority of port will be paused when the data flow is over the setting limitation. As for the Pause time segment, there are five categories to select from 1 to 5 and the unit is 0.5 sec. For example, the 5 stands for 5x0.5sec=2.5 sec. Within the time segmentation, no packet is allowed to access to control the data flow.

Bandwidth Limitation I Off(Range:1~5 Unit:0.5 Sec)		
Enable	128k/s	Off ³
Disable	128k/s	Off
Disable	256k/s	Off
Disable	384k/s	Off
Disable	512k/s	Off

Set up CRC Threshold

User could adjust the column of each port including three modes to choose, 1%, 5% and 10%. The higher percentage makes the trap easier.



The image shows a configuration window titled "CRC Threshold". It contains a dropdown menu with four options: "10%", "1%", "5%", and "10%". The "1%" option is currently selected and highlighted in blue. The window has a light gray background and a thin border.

System Information

Information

From these columns, you can get the detailed information about the Software and Hardware. Also, you can have your system setting.

Version Information

Item	Version	Released Date
Boot UP	v1.02	5/20/2003
POST	v1.04	5/22/2003
Runtime	v2.08	5/21/2003
Hardware MainBoard	R00	-----

Note. The version will be different from the one of final goods.

System Setting

Item	Value
Location	NONE
Contact	NONE
Name	NONE
Submit Undo	

Network Configure

Information

You could key in the network setting and keep them as the reference. When you would like to know what the associated information is, you can get them from the column.

<i>Network Setting</i>	
Item	Value
IP Address	10.1.1.111
Subnet Mask	255.0.0.0
Gateway Address	10.0.0.254
MAC(Chip 1)	20-03-04-24-16-54
MAC(Chip 2)	20-03-04-24-16-55
Submit Undo	

Ports Info/Configure

Information

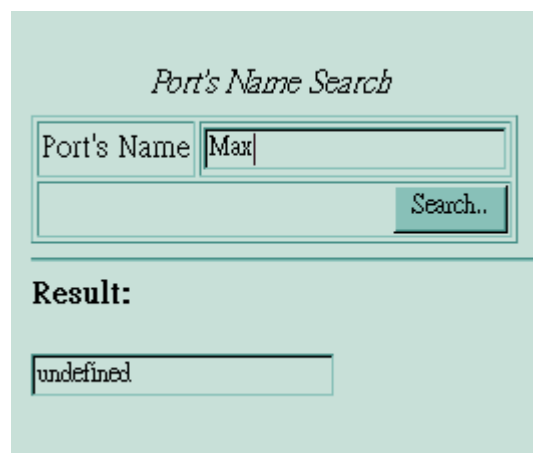
For this item, you can know the information of ports, configuration, statistics and port's name search. It provides you an effective way to know the status.

HPNA Ports Ethernet Ports							
Hpna Ports Information							
Port	Name	Link	Speed	Rx Level	Tx Level	Rx Noise Level	Bandwidth Limitation
1		Link UP	High	246	9	9	Disable
2		Link UP	High	246	9	9	Disable
3		Link UP	High	246	9	9	Disable
4		Link UP	High	246	9	9	Disable
5		Link UP	High	246	9	9	Disable
6		Link UP	High	246	9	9	Disable
7		Link UP	High	246	9	9	Disable
8		Link UP	High	246	9	9	Disable
9		Link UP	High	246	9	9	Disable
10		Link UP	High	246	9	9	Disable
11		Link UP	High	246	9	9	Disable
12		Link UP	High	246	9	9	Disable
13		Link UP	High	246	9	9	Disable
14		Link UP	High	246	9	9	Disable

Port name search

Information

In this column, you could search which port name and see the result easily. When many users use the switch, the “Ports name search” provide the efficient way to identify which port’s name is.



The screenshot shows a web interface titled "Port's Name Search". It features a search form with a label "Port's Name" and a text input field containing the text "Max". To the right of the input field is a button labeled "Search..". Below the search form, there is a section labeled "Result:" followed by a text input field that displays the word "undefined".

VLAN Table

Information

The VLAN is a group of ports that may spread around the network but communicate as though they belong to one subnet. By using IEEE 802.1Q compliant VLAN, all ports can be reorganized into separate broadcast domains for security reasons and reduce bandwidth occupation instead of using routers to divide whole network into subnets. It produces cleaner network environment by reducing broadcast traffic and simplify network management by allowing you to move devices to another VLAN without changing physical connections.

● 802.1Q VLAN

Before enabling 802.1Q VLAN , pay attention to :

- All ports are default to VLAN 1 and assigned PVID 1
- All the ports of a Aggregation Group must be treated as an integer when added to/ deleted from a VLAN

Create VLAN entry

This screen is used to Add / Remove VLAN and up to 255 groups with VID 1~4094. The VLAN groups that have been created are all listed here.

To create a new VLAN Entry

1. Specify the name for the new VLAN Entry (VLAN name is only used for identification)
2. Enter a number (VLAN ID) and Name for the new VLAN group
3. Click <<Add button to create the new VLAN Entry

Current	Option	New
[Name] [VID]1 [Admin]Enable	ADD	Name: MFD
	Remove	VID: 111
		Admin: Enable

To remove a VLAN Entry

1. Select a VLAN group you want to remove from the “Current” list
2. Click **Remove>>** button to remove it

Attention

1. If a removed port is no longer belong to any other group, it is temporarily disabled because no one can communicate with it.
2. If one port's PVID is equal to this VLAN ID, removing this VLAN group will not allow until you change it.

VLAN Port Member configuration

This screen is used to Add / Remove member ports of a VLAN.

Egress Ports / Member

The ports that have been added to the displayed VLAN group

Choose a VID:

VLAN Port Member Configuration

Members	Option	Non-Members
1 2 3 4 5	Add Remove	

Tagged Ports / Member

The tagged ports of the displayed VLAN group

Tagged Port Member Configuration

Members	Option	Non-Members
	Add Remove	1 2 3 4 5

To add member port

1. Click the “VLAN ID” combo box and select a VLAN you want new ports to join in
2. Select port (one port for each time) in the “Non-Member” column
3. Click <<Add button to join selected ports in

To remove member port

1. Click the “VLAN ID” combo box and select a VLAN you want to remove ports
2. Select port (one port for each time) in the “Member” column
3. Click Remove>> button to delete selected ports

- 1.If a removed port is no longer belong to any other group, it is temporarily disabled because no one can communicate with it
 - 2.The port which is assigned a PVID and the PVID is equal to VLAN ID, removing the port will not allow until you change it

PVID& Ingress filter

When the VLAN-enabled switch receives an untagged packet, the packet will be sent to the port's default VLAN according to the PVID (port VLAN ID) of the receiving port.

HPNA/Ethernet Ports		
Port	PVID	Ingress Filter
1	1	Disable ▾
2	1	Disable ▾
3	1	Disable ▾
4	1	Disable ▾
5	1	Disable ▾
6	1	Disable ▾
7	1	Disable ▾
8	1	Disable ▾
9	1	Disable ▾
10	1	Disable ▾
11	1	Disable ▾
12	1	Disable ▾
13	1	Disable ▾
14	1	Disable ▾
15	1	Disable ▾
16	1	Disable ▾
17	1	Disable ▾
18	1	Disable ▾
		Apply Undo

To change the PVID

1. Double click the “PVID” column of a port
2. Input a new VLAN ID (1~4094)
3. Press “**Enter**” to submit the value
4. Click **Apply** button to apply it

Note :

1. All the ports are default as members of VLAN 1 and assigned PVID 1
2. The port which was assigned a PVID and the PVID is equal to VLAN ID, removing the port will not allow until you change it
3. Inherently, a port will join the VLAN of its PVID, and if the VLAN does not exist, system will create it

To Enable/Disable Ingress Filtering

When one packet comes in from **Port X** to **VLAN Y**, but **Port X** is not a member of **VLAN Y**

Ingress Filter **Enabled** : The filter checks the packet and detects **Port X** does not belong to the **VLAN Y**, the Ingress Filter discards the packet.

Ingress Filter **Disabled** : All the packets destined to **VLAN Y** are all unobstructed.

Click the “Ingress Filtering” column of a port and select ‘Enable’ to activate Ingress Filter

Security

Information

To configure the device and ports access authority limitation of SWITCH Web-based user interface/telnet console, click the security option on the main menu.

Security page

Device HFNA Ports

Note: When configuring the Security column, Telnet & Web might link down for several seconds.

Device Access Control

Host Access Control: ☐ Enable ☒ Disable

Ports Access Control

Port 1~17 access control: ☐ Active ☒ Inactive

Device configuration

Host access control

On the **Device** option, it contains two parts, one is Host access control, and another is Port access control. The host access control provides three options. On Host access control option, user defines the subnet IP that is cable to access the SWITCH. The user is able to activate or deactivate the function of access authority limitation by click **Enable** or **Disable**.

The Column of Value will appear when the control enables. Type the Network IP address in the column of **Network address** and the subnet mask value in the column of **Network Mask**, and then click the **Apply** gray button to save the change. Click **Undo** button to erase the wrong key-in value.

Device HPNA Ports

Host Access Control: ☒ Enable ☐ Disable

Item	Value
Network Address	10.10.10.0
Network Mask	0.0.0.0
Apply Undo	

Port access Control

To configure the access parameters of the 1~16 RJ-11 ports and the uplink RJ-45 port 17, use the option of **Port 1~17 access control**.

Ports Access Control

Port 1~17 access control: ☒ Active ☐ Inactive

Port 17 access control	Enable ☐	Disable ☒
Apply Undo		

To activate or deactivate it, click the **Active** or **Inactive** option. To deactivate the access authority of 1~17 ports, select **Active** option. Selecting the **Inactive** option to enable the access authority of the port 1~17. The Column of **Port 17 access control** will appear when the control enables. To configure the access control of Port 17, click **Enable** to open and click **Disable** to pause.

HPNA ports

To configure the access authority limitation of each port, use the menu of HPNA Ports option.

HPNA port Security

To enable the access automatically, select the **Auto** on the **option** menu. It will auto-detect the MAC IP of the attached devices and memorize it. To Pause the access, Select **Inactive**.

HPNA Port Security

Port	Option	MAC List
1	Inactive	

As for Manual configuration, select the **manual** option, and a small popup widow will appear.

Fill the table on the pop-up window to setup the value of **MAC** and the **VID** (VLAN identity), and click **ADD** button to add the MAC address and VID to the current column.

HPNA Port Security

Port	Option	MAC List
1	Manual	

⇒

Create Security MAC

Current	Option	New
10:34:00:00:00:00 (VID:1)	ADD	Port:
	Remove	MAC: 00-00-00-00-00-00
		VID:

To remove one set of MAC, select it and click **Remove** button. To apply the changes, click **Active Setting**.

16	Inactive	
Active Setting		

For the sack of user-friendly, Mac-list will memorize the Mac IP of attached devices up to eight sets. The Mac IP list provides a reference log for attached device MAC address.

Attention: Due to data processing, the program will delay for one or two minutes when applying new security setting

SNMP

Simple Network Management Protocol (SNMP) is a communication protocol for managing devices on a network. It is commonly used for network administrators to communicate with multiple devices (hub, switch, router etc...) for configuring and monitoring while convenient for troubleshooting but no miscellaneous platform consideration.

The built-in SNMP is an agent, which watches the status of it self. The Network Management Station (A computer attached to network with SNMP management program well installed) can be used to access it.

Community

A valid entry of Community String and IP Address is for authentication to login to the SNMP agent for configuration. Moreover, the community capacity can up to 3 sets and only by the way of specified IP address here will be allowed to access the agent. One entry consist of IP address "0.0.0.0" will allow the ones who know the community string to access the agent (with Read-Only access right) without limitation.

To add a community

1. Input a name as a community string for authentication in the "Community String" field (ex: administrator)
2. Enter the IP address in the "IP address" field you allow to access from
(ex: 192.168.1.22)
3. Click the "Access Mode" combo box and select a authority (Read-Only / Read-Write)
4. Click <<Add button to add this entry

To Remove a Trap manager

1. Select the Trap manager you want to remove from the "Current" list
2. Click Remove>> button to remove it

Create Community Entry

Current	Option	New
(Name)public (IP)0.0.0.0 (Access)Read-only	ADD	Name:
(Name)private (IP)10.10.14.123 (Access)Read-Write	Remove	IP :
		Access: Read-Only

Trap Manager

Trap Manager specifies the Network Management Stations (NMS) that will receive trap messages from the SNMP agent and can up to 5 entries. A Trap Manager entry with Aging Time “0” will never expire; and Aging Time “10” will expire when 10 minutes is up and no trap messages can corresponding entry receive.

To Add a Trap Manager

1. Input a name for authentication in the “Community String” field
(ex: administrator)
2. Enter the IP address in the “IP address” field you allow to access from
(ex: 192.168.1.22)
3. Enter a expiry time for this entry will be durable in minutes
(“0” for never expires)
4. Click <<Add button to add the entry

To Remove a Trap manager

1. Select the community you want to remove from the “Current” list
2. Click **Remove>>** button to remove it

Create Trap Community Entry		
Current	Option	New
(Name)NetAdmin (IP)10.10.14.123 (Aging)0	ADD	Name:
	Remove	IP :
		Aging: 0

Trap Filtering

Check the “Enable” boxes by mouse clicking to receive a notice when corresponding event occurs.

Item	Option
Cold start	☒ Enable
Warm start	☒ Enable
Over heat	☒ Enable
Link up	☒ Enable
Link down	☒ Enable
MAC intruded	☒ Enable
Switch failed	☒ Enable
Access intruded	☒ Enable
Upgrade	☒ Enable
Test trap	☒ Enable
Console Login	☒ Enable
Unauthenticated	☒ Enable
CRC exceed	☒ Enable
Config saved	☒ Enable
Apply Undo	

IGMP Snooping

Multicasting is widely used to support multi-media applications such as video conferencing. The multicasting simply broadcasts its services to the group of a network instead of establishing connections separately with every host that subscribed the services. With no Multicast Filtering-aware switches, a multicast server may floods broadcast-data overall the broadcast domain and wastes a lot of bandwidth.

The Internet Group Management Protocol (IGMP) snooping uses the protocol to make switches join/leave multicast group and interacts switches to optimize the network performance by monitoring the IGMP packets and forward to the ports containing multicast hosts or switches. This will efficiently reduce the multicast traffic rather than flooding overall network. IGMP snooping is more and more important especially when the multi-media demand is booming.

Note :

As IGMP Snooping only operates under 802.1Q VLAN mode, please change VLAN mode from Port Group VLAN to 802.1Q VLAN before enabling IGMP Snooping.

MAC Search

To search for a specific MAC IP, use Mac search to save time.

MAC Address Search

MAC:	00-00-00-00-00-00	VID:	1
Result:			
		Search	Undo

Over-Heat Warning

To set up over heat alarm standard and monitor the system temperature, use Over-heat warming setting.

Over-Heat Warning Setting

Item	Value
Current Temperature	29 `C
Warning Triger Level	50 `C
Submit Undo	

Product Specifications

Standard	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX IEEE802.3x full-duplex operation and flow control IEEE 802.1 Q VLAN
Interface	16 * HPNA RJ-11 ports 2 * 10 / 100Mbps Fast Ethernet Ports 1 * RS-232 console port 1 * post / factory reset button
Cable Connections	RJ-45 (10BASE-T): Category 3,4,5 UTP / STP RJ-45 (100BASE-TX): Category 5 UTP / STP 1Mbps Home Net: Twisted-pair telephone wires
LED indications	System Power; Status 1; Status 2; Management Port (1Mbps HPNA port) Link / Activity x1 Port (10 / 100Mbps Fast Ethernet port) Speed x1 Link / Activity x1 FDX / COL x1
Memory	12K MAC entries; 4M bit packet switching 2M bit control data
Emission	FCC Class A, CE
Operating Temperature	0° ~ 50°C (32° ~ 122°F)
Operating Humidity	10% - 90%
Power Supply	90~264 VAC, 47~440 Hz